Figure 1

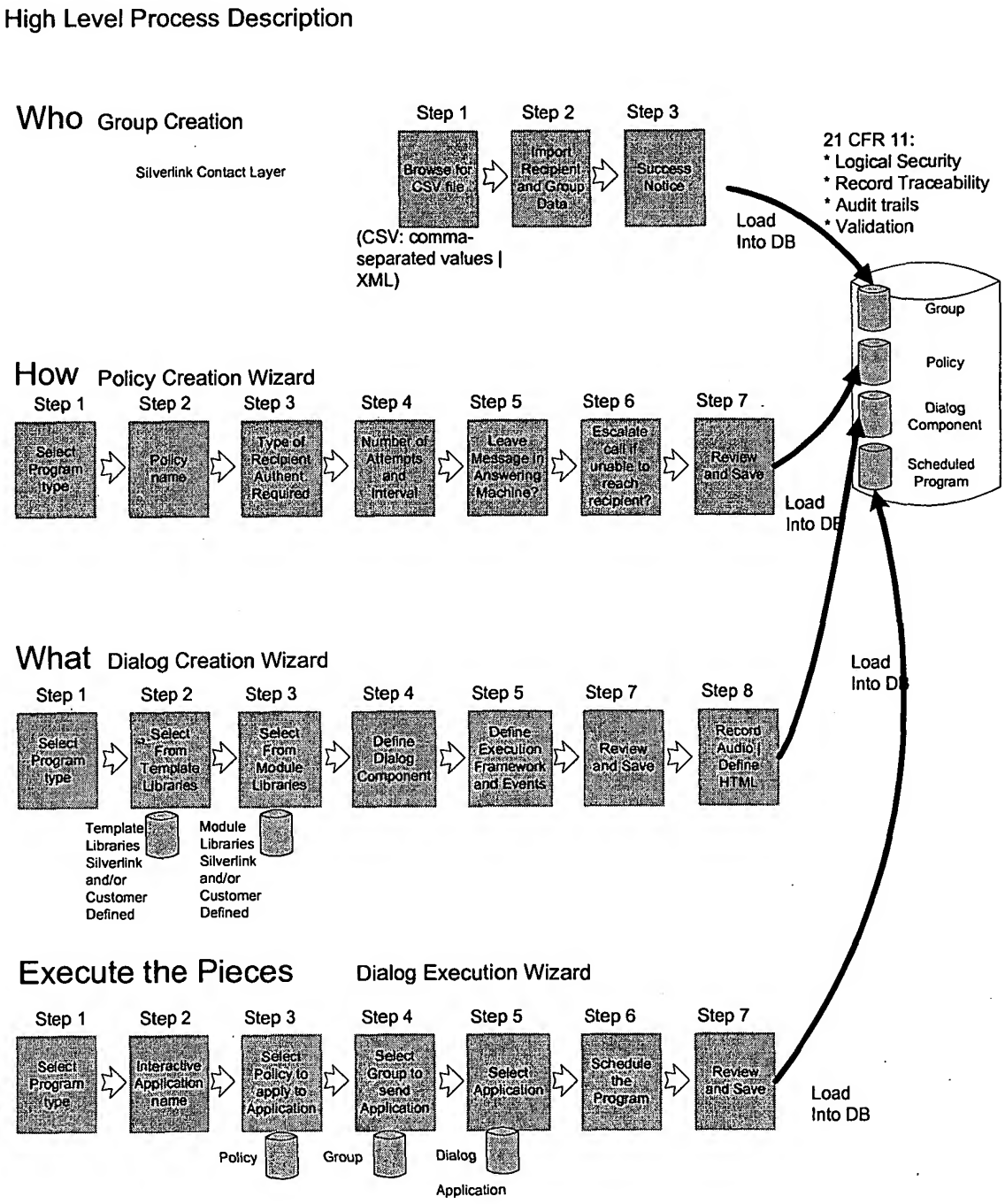

High Level Process Description
Who Group Creation
Silverlink Contact Layer
Step 1
Step 2
Step 3
Browse for CSV file
Import Recipient and Group Data
Success Notice
(CSV: comma-separated values | XML)
Load Into DB
21 CFR 11:
* Logical Security
* Record Traceability
* Audit trails
* Validation
Group
Policy
Dialog Component
Scheduled Program
How Policy Creation Wizard
Step 1
Step 2
Step 3
Step 4
Step 5
Step 6
Step 7
Select Program type
Policy name
Type of Recipient Authent. Required
Number of Attempts and Interval
Leave Message in Answering Machine?
Escalate call if unable to reach recipient?
Review and Save
Load Into DB
What Dialog Creation Wizard
Step 1
Step 2
Step 3
Step 4
Step 5
Step 7
Step 8
Select Program type
Select From Template Libraries
Select From Module Libraries
Define Dialog Component
Define Execution Framework and Events
Review and Save
Record Audio | Define HTML
Load Into DB
Template Libraries Silverlink and/or Customer Defined
Module Libraries Silverlink and/or Customer Defined
Execute the Pieces
Dialog Execution Wizard
Step 1
Step 2
Step 3
Step 4
Step 5
Step 6
Step 7
Select Program type
Interactive Application name
Select Policy to apply to Application
Select Group to send Application
Select Application
Schedule the Program
Review and Save
Load Into DB
Policy
Group
Dialog
Application

Figure 2

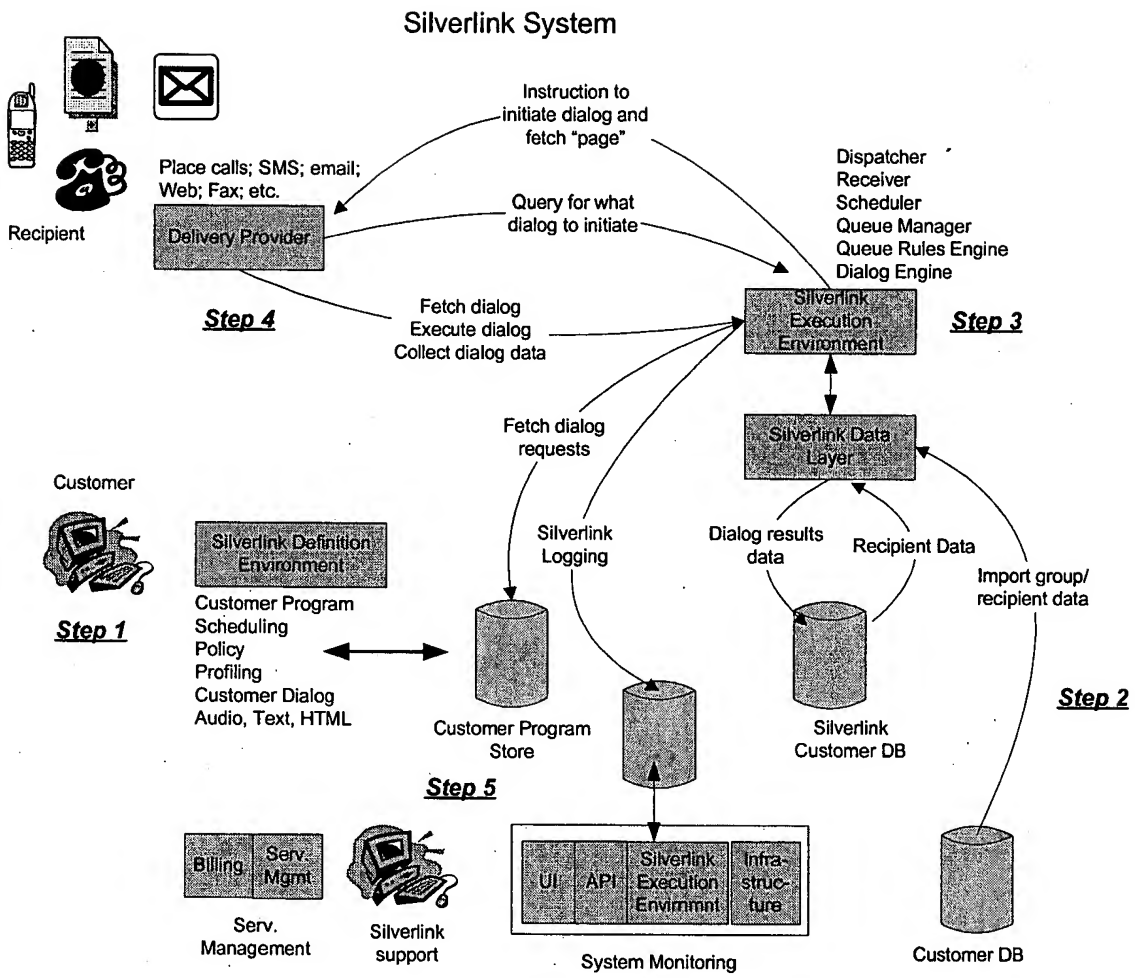

Silverlink System
Instruction to initiate dialog and fetch "page"
Place calls; SMS; email; Web; Fax; etc.
Recipient
Delivery Provider
Query for what dialog to initiate
Dispatcher
Receiver
Scheduler
Queue Manager
Queue Rules Engine
Dialog Engine
Step 4
Fetch dialog
Execute dialog
Collect dialog data
Silverlink Execution Environment
Step 3
Fetch dialog requests
Silverlink Data Layer
Customer
Silverlink Definition Environment
Silverlink Logging
Dialog results data
Recipient Data
Import group/ recipient data
Step 1
Customer Program
Scheduling
Policy
Profiling
Customer Dialog
Audio, Text, HTML
Customer Program Store
Silverlink Customer DB
Step 2
Step 5
Billing
Serv. Mgmt
Serv. Management
Silverlink support
UI
API
Silverlink Execution Envirmmnt
Infra-struc-ture
System Monitoring
Customer DB

Figure 3

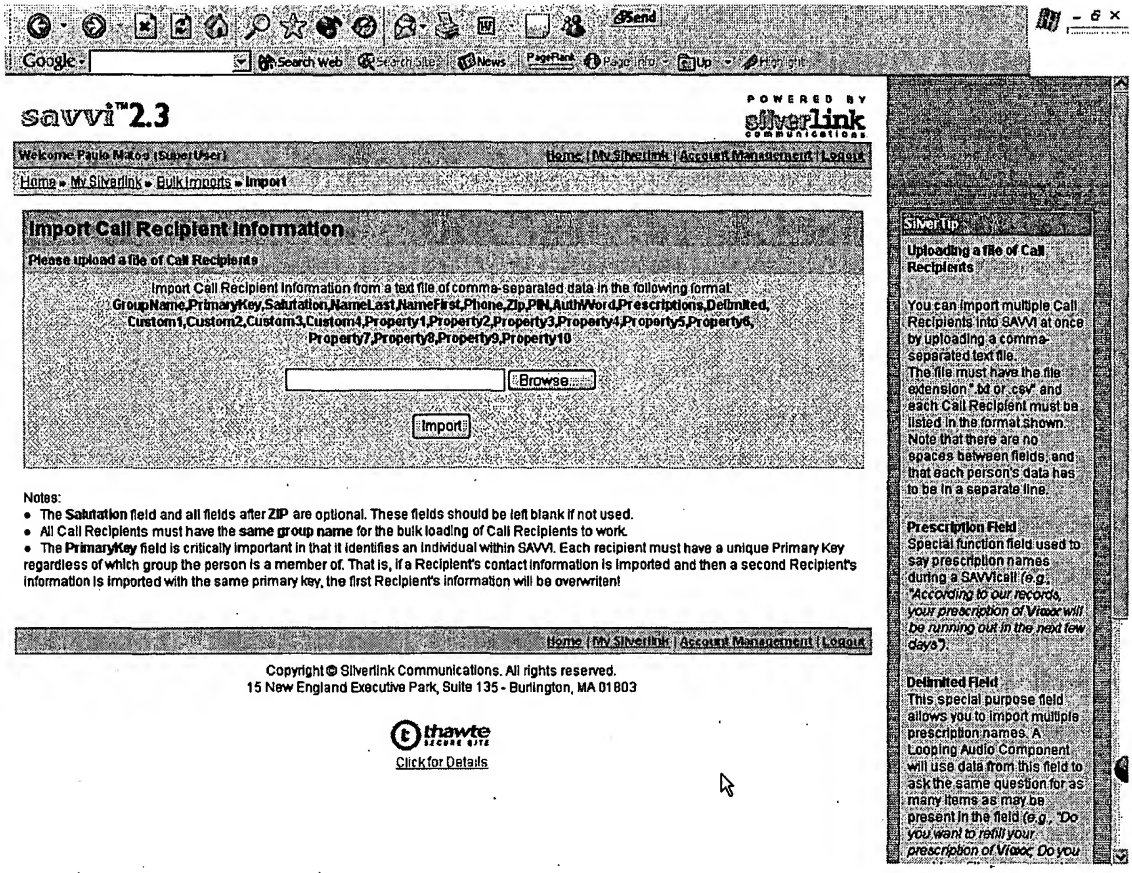

savvi™2.3
POWERED BY silverlink communications
Welcome Paulo Matos (SuperUser)
Home | My Silverlink | Account Management | Logout
Home » My Silverlink » Bulk Imports » Import
Import Call Recipient Information
Please upload a file of Call Recipients
Import Call Recipient Information from a text file of comma-separated data in the following format:
GroupName,PrimaryKey,Salutation,NameLast,NameFirst,Phone,Zip,PIN,AuthWord,Prescriptions,Delimited,
Custom1,Custom2,Custom3,Custom4,Property1,Property2,Property3,Property4,Property5,Property6,
Property7,Property8,Property9,Property10
Browse...
Import
Notes:
• The Salutation field and all fields after ZIP are optional. These fields should be left blank if not used.
• All Call Recipients must have the same group name for the bulk loading of Call Recipients to work.
• The PrimaryKey field is critically important in that it identifies an individual within SAVVI. Each recipient must have a unique Primary Key regardless of which group the person is a member of. That is, if a Recipient's contact information is imported and then a second Recipient's information is imported with the same primary key, the first Recipient's information will be overwritten!
Home | My Silverlink | Account Management | Logout
Copyright © Silverlink Communications. All rights reserved.
15 New England Executive Park, Suite 135 - Burlington, MA 01803
thawte SECURE SITE
Click for Details
SilverTip
Uploading a file of Call Recipients
You can import multiple Call Recipients into SAVVI at once by uploading a comma-separated text file.
The file must have the file extension ".txt or .csv" and each Call Recipient must be listed in the format shown.
Note that there are no spaces between fields, and that each person's data has to be in a separate line.
Prescription Field
Special function field used to say prescription names during a SAVVIcall (e.g., "According to our records, your prescription of Vioxx will be running out in the next few days").
Delimited Field
This special purpose field allows you to import multiple prescription names. A Looping Audio Component will use data from this field to ask the same question for as many items as may be present in the field (e.g., "Do you want to refill your prescription of Vioxx, Do you

Figure 3A

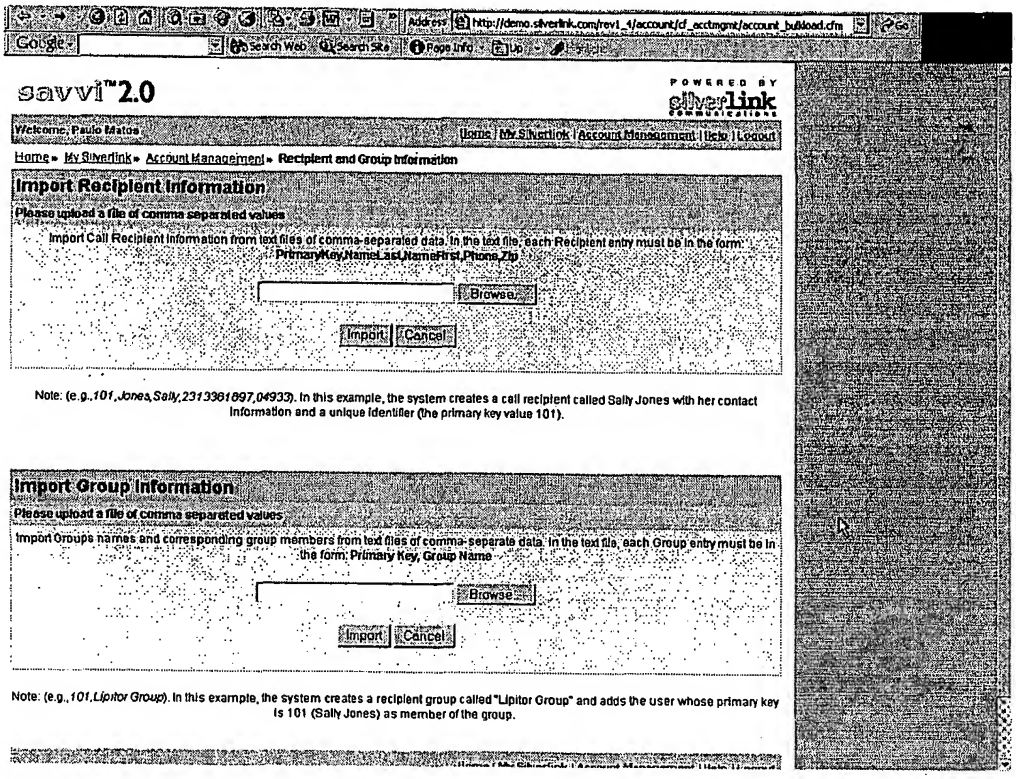

savvi™2.0
POWERED BY
silverLink
COMMUNICATIONS
Welcome, Paulo Matos
Home | My Silverlink | Account Management | Help | Logout
Home » My Silverlink » Account Management » Recipient and Group Information
Import Recipient Information
Please upload a file of comma separated values
Import Call Recipient information from text files of comma-separated data. In the text file, each Recipient entry must be in the form: PrimaryKey,NameLastName,First,Phone,Zip
Browse...
Import
Cancel
Note: (e.g.,101,Jones,Sally,2313361897,04933). In this example, the system creates a call recipient called Sally Jones with her contact information and a unique identifier (the primary key value 101).
Import Group Information
Please upload a file of comma separated values
Import Groups names and corresponding group members from text files of comma-separate data. In the text file, each Group entry must be in the form: Primary Key, Group Name
Browse...
Import
Cancel
Note: (e.g.,101,Lipitor Group). In this example, the system creates a recipient group called "Lipitor Group" and adds the user whose primary key is 101 (Sally Jones) as member of the group.

Figure 4

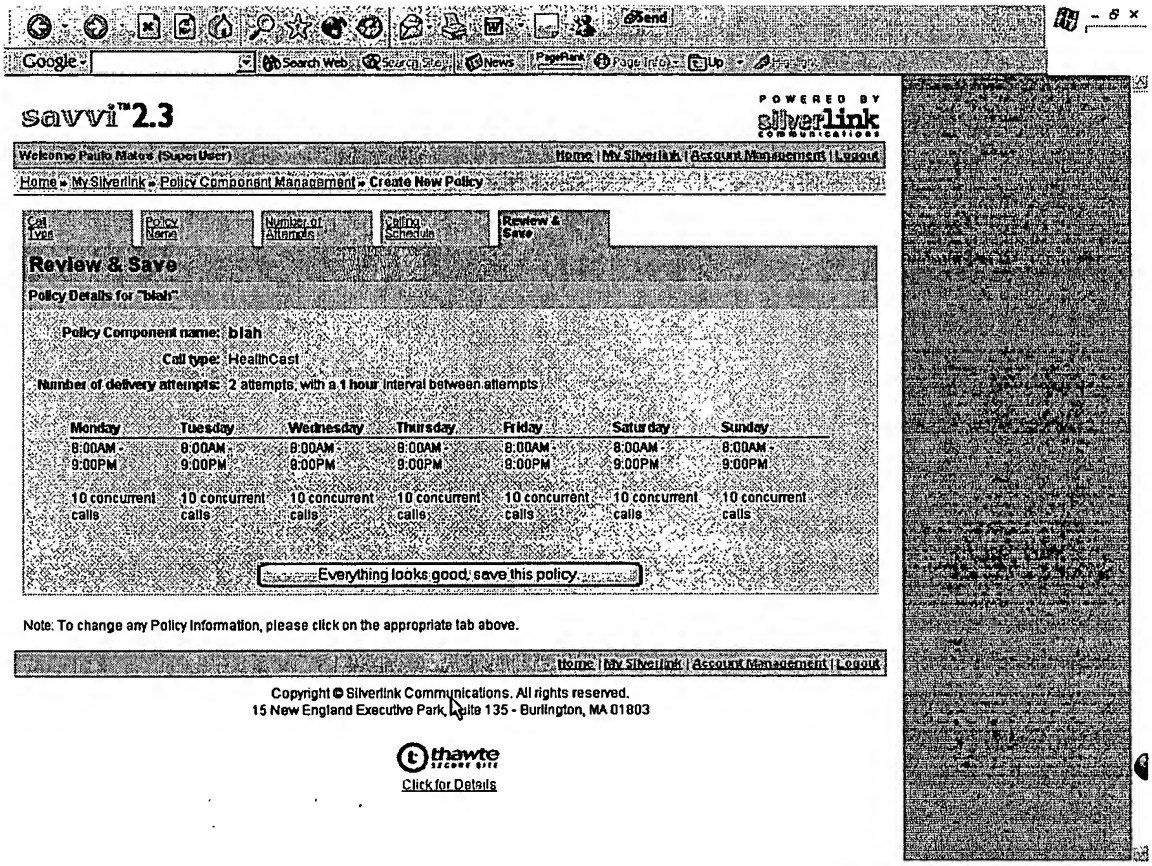

savvi™2.3
POWERED BY silverlink COMMUNICATIONS
Welcome Paulo Mateo (SuperUser)
Home | My Silverlink | Account Management | Logout
Home » My Silverlink » Policy Component Management » Create New Policy
Call Type
Policy Name
Number of Attempts
Calling Schedule
Review & Save
Review & Save
Policy Details for "blah"
Policy Component name: blah
Call type: HealthCast
Number of delivery attempts: 2 attempts, with a 1 hour interval between attempts
Monday 8:00AM - 9:00PM 10 concurrent calls
Tuesday 8:00AM - 9:00PM 10 concurrent calls
Wednesday 8:00AM - 9:00PM 10 concurrent calls
Thursday 8:00AM - 9:00PM 10 concurrent calls
Friday 8:00AM - 9:00PM 10 concurrent calls
Saturday 8:00AM - 9:00PM 10 concurrent calls
Sunday 8:00AM - 9:00PM 10 concurrent calls
Everything looks good, save this policy
Note: To change any Policy information, please click on the appropriate tab above.
Home | My Silverlink | Account Management | Logout
Copyright © Silverlink Communications. All rights reserved.
15 New England Executive Park, Suite 135 - Burlington, MA 01803
thawte
Click for Details

Figure 5

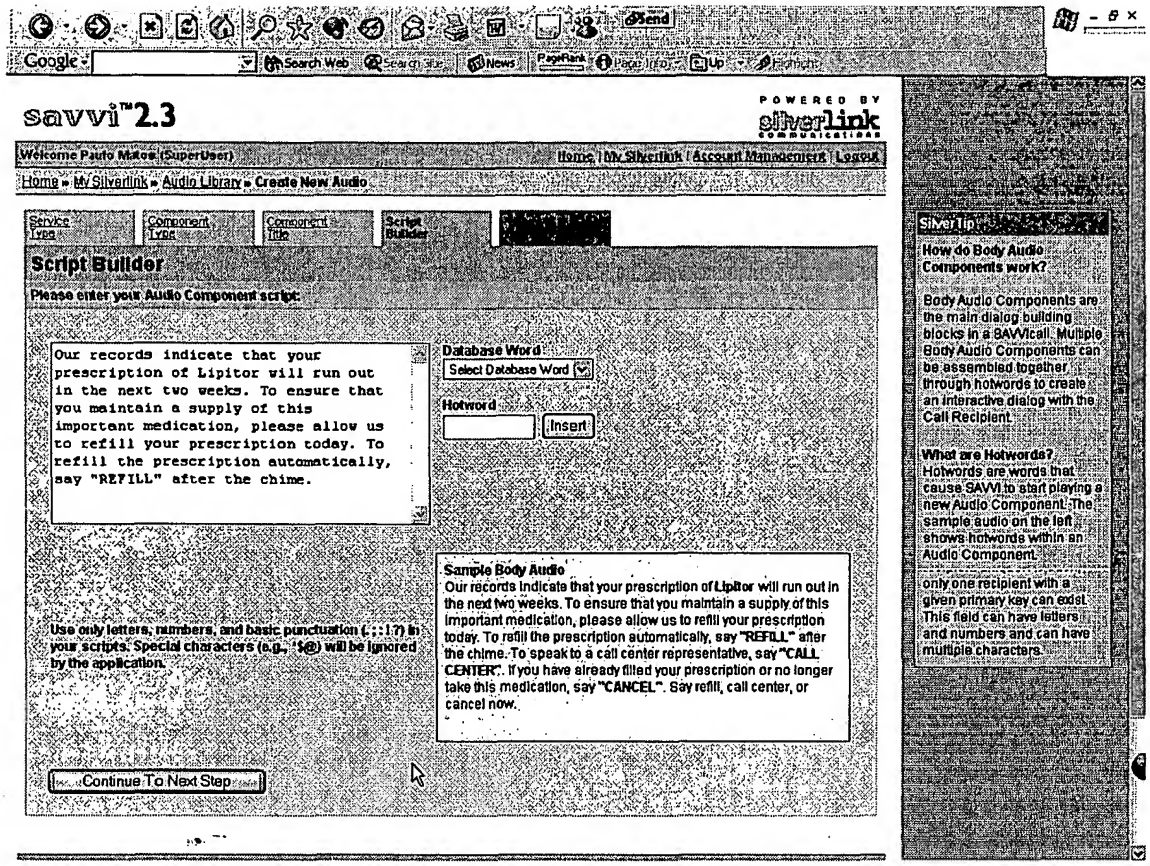

savvi™2.3
POWERED BY silverlink communications
Welcome Paulo Matos (SuperUser)
Home | My Silverlink | Account Management | Logout
Home » My Silverlink » Audio Library » Create New Audio
Service Type
Component Type
Component Title
Script Builder
Script Builder
Please enter your Audio Component script:
Our records indicate that your prescription of Lipitor will run out in the next two weeks. To ensure that you maintain a supply of this important medication, please allow us to refill your prescription today. To refill the prescription automatically, say "REFILL" after the chime.
Database Word
Select Database Word
Hotword
Insert
Use only letters, numbers, and basic punctuation (, : ! ?) in your scripts. Special characters (e.g., '&@) will be ignored by the application.
Sample Body Audio
Our records indicate that your prescription of Lipitor will run out in the next two weeks. To ensure that you maintain a supply of this important medication, please allow us to refill your prescription today. To refill the prescription automatically, say "REFILL" after the chime. To speak to a call center representative, say "CALL CENTER". If you have already filled your prescription or no longer take this medication, say "CANCEL". Say refill, call center, or cancel now.
Continue To Next Step
SilverTip
How do Body Audio Components work?
Body Audio Components are the main dialog building blocks in a SAVIcall. Multiple Body Audio Components can be assembled together through hotwords to create an interactive dialog with the Call Recipient.
What are Hotwords?
Hotwords are words that cause SAVI to start playing a new Audio Component. The sample audio on the left shows hotwords within an Audio Component.
only one recipient with a given primary key can exist. This field can have letters and numbers and can have multiple characters.

Figure 6

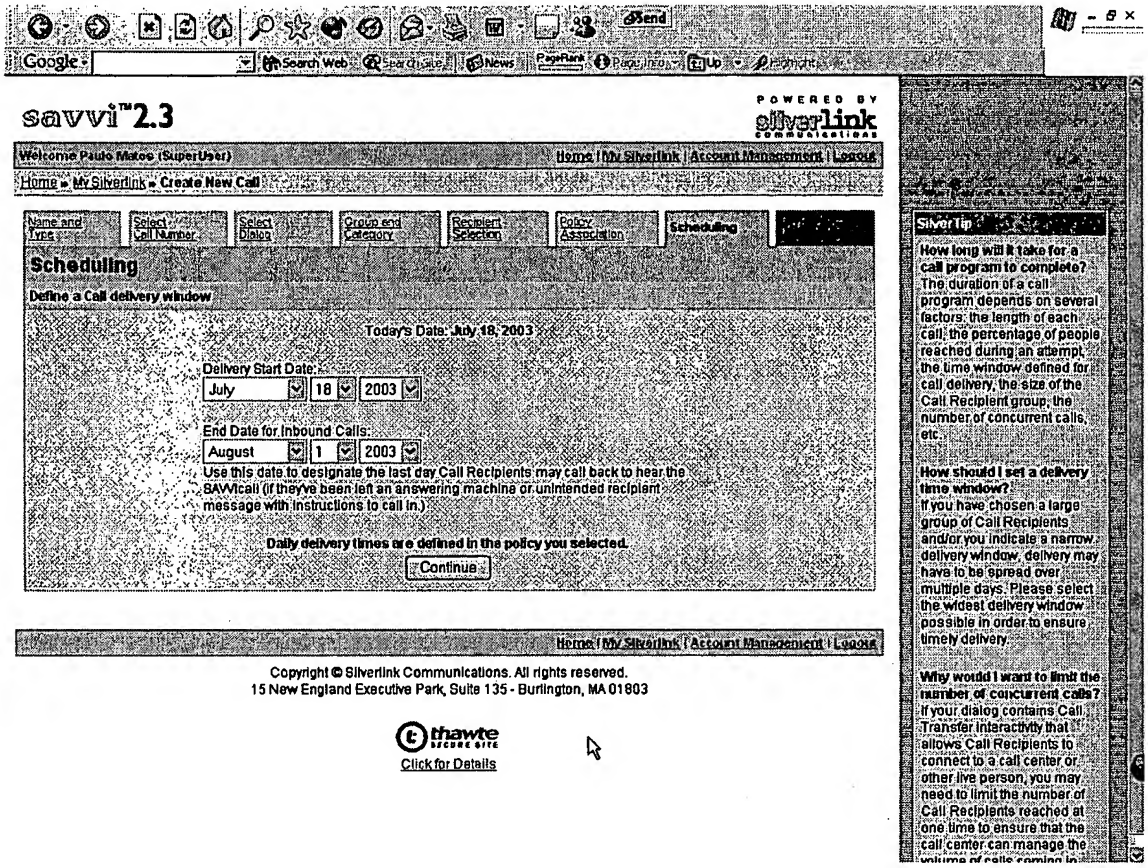

savvi™2.3
POWERED BY silverlink communications
Welcome Paulo Matos (SuperUser)
Home | My Silverlink | Account Management | Logout
Home » My Silverlink » Create New Call
Name and Type
Select Call Number
Select Dialog
Group and Category
Recipient Selection
Policy Association
Scheduling
Scheduling
Define a Call delivery window
Today's Date: July 18, 2003
Delivery Start Date:
July 18 2003
End Date for Inbound Calls:
August 1 2003
Use this date to designate the last day Call Recipients may call back to hear the SAVVIcall (if they've been left an answering machine or unintended recipient message with instructions to call in.)
Daily delivery times are defined in the policy you selected.
Continue
Home | My Silverlink | Account Management | Logout
Copyright © Silverlink Communications. All rights reserved.
15 New England Executive Park, Suite 135 - Burlington, MA 01803
thawte SECURE SITE
Click for Details
SilverTip
How long will it take for a call program to complete?
The duration of a call program depends on several factors: the length of each call, the percentage of people reached during an attempt, the time window defined for call delivery, the size of the Call Recipient group, the number of concurrent calls, etc.
How should I set a delivery time window?
If you have chosen a large group of Call Recipients and/or you indicate a narrow delivery window, delivery may have to be spread over multiple days. Please select the widest delivery window possible in order to ensure timely delivery.
Why would I want to limit the number of concurrent calls?
If your dialog contains Call Transfer interactivity that allows Call Recipients to connect to a call center or other live person, you may need to limit the number of Call Recipients reached at one time to ensure that the call center can manage the

Figure 6 A

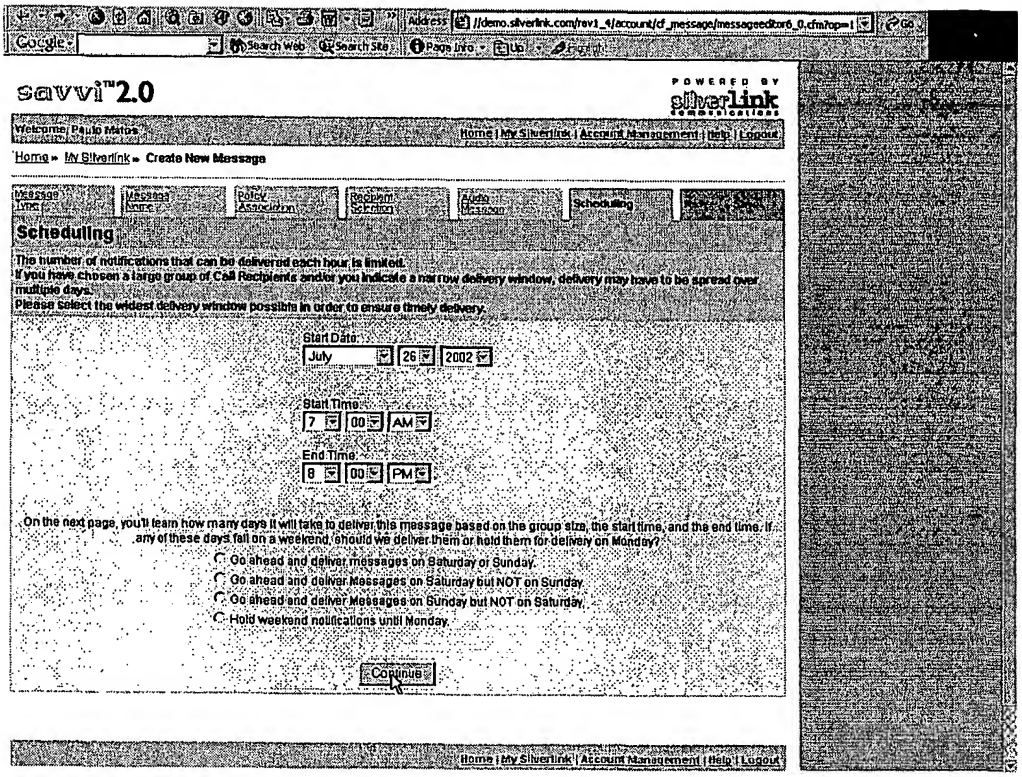

savvi™2.0
POWERED BY silverlink communications
Welcome Paulo Mateus
Home | My Silverlink | Account Management | Help | Logout
Home » My Silverlink » Create New Message
Policy Association
Recipient Selection
Scheduling
Scheduling
The number of notifications that can be delivered each hour is limited.
If you have chosen a large group of Call Recipients and/or you indicate a narrow delivery window, delivery may have to be spread over multiple days.
Please select the widest delivery window possible in order to ensure timely delivery.
Start Date:
July 26 2002
Start Time:
7 00 AM
End Time:
8 00 PM
On the next page, you'll learn how many days it will take to deliver this message based on the group size, the start time, and the end time. If any of these days fall on a weekend, should we deliver them or hold them for delivery on Monday?
Go ahead and deliver messages on Saturday or Sunday.
Go ahead and deliver Messages on Saturday but NOT on Sunday.
Go ahead and deliver Messages on Sunday but NOT on Saturday.
Hold weekend notifications until Monday.
Continue
Home | My Silverlink | Account Management | Help | Logout

Figure 7

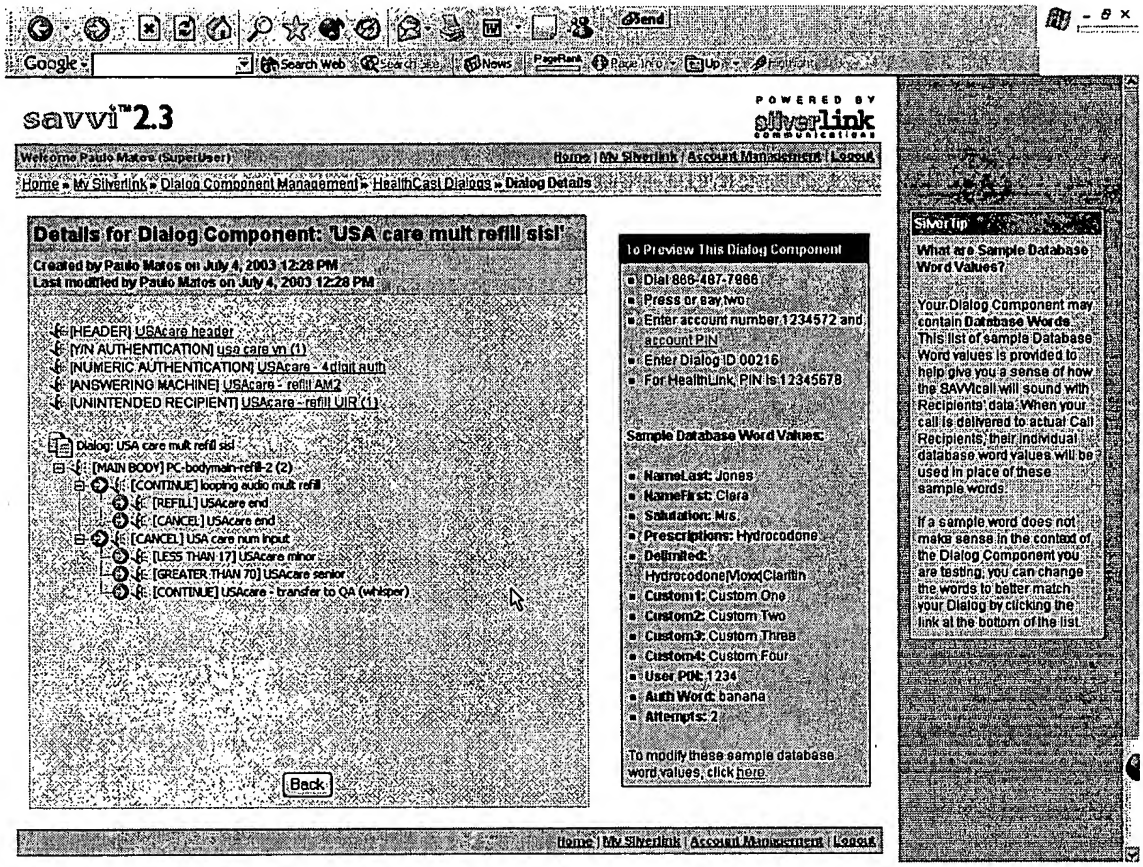
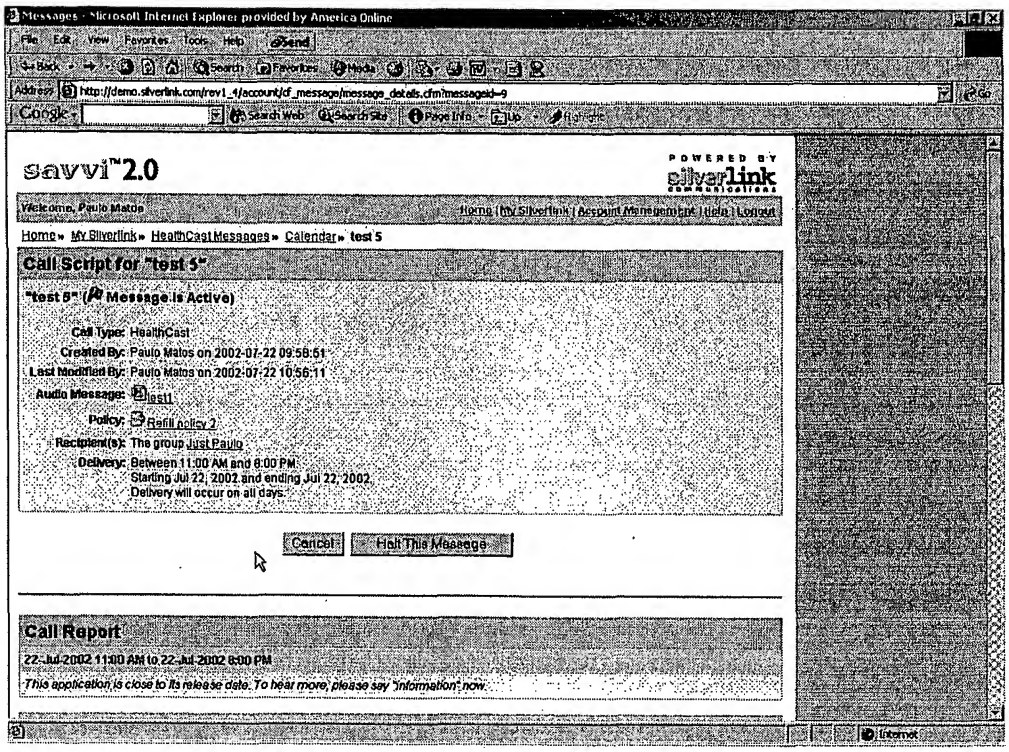

savvi™2.3
POWERED BY silverlink communications
Welcome Paulo Matos (SuperUser)
Home | My Silverlink | Account Management | Logout
Home » My Silverlink » Dialog Component Management » HealthCast Dialogs » Dialog Details
Details for Dialog Component: 'USA care mult refill sisl'
Created by Paulo Matos on July 4, 2003 12:28 PM
Last modified by Paulo Matos on July 4, 2003 12:28 PM
[HEADER] USAcare header
[Y/N AUTHENTICATION] usa care yn (1)
[NUMERIC AUTHENTICATION] USAcare - 4digit auth
[ANSWERING MACHINE] USAcare - refill AM2
[UNINTENDED RECIPIENT] USAcare - refill UIR (1)
Dialog: USA care mult refill sisl
[MAIN BODY] PC-bodymain-refill-2 (2)
[CONTINUE] looping audio mult refill
[REFILL] USAcare end
[CANCEL] USAcare end
[CANCEL] USA care num input
[LESS THAN 17] USAcare minor
[GREATER THAN 70] USAcare senior
[CONTINUE] USAcare - transfer to QA (whisper)
Back
To Preview This Dialog Component
Dial 866-487-7866
Press or say two
Enter account number 1234572 and account PIN
Enter Dialog ID 00216
For HealthLink, PIN is 12345678
Sample Database Word Values:
NameLast: Jones
NameFirst: Clara
Salutation: Mrs
Prescriptions: Hydrocodone
Delimited: Hydrocodone|Moxx|Claritin
Custom1: Custom One
Custom2: Custom Two
Custom3: Custom Three
Custom4: Custom Four
User PIN: 1234
Auth Word: banana
Attempts: 2
To modify these sample database word values, click here
SilverTip
What are Sample Database Word Values?
Your Dialog Component may contain Database Words. This list of sample Database Word values is provided to help give you a sense of how the SAVVIcall will sound with Recipients' data. When your call is delivered to actual Call Recipients, their individual database word values will be used in place of these sample words.
If a sample word does not make sense in the context of the Dialog Component you are testing, you can change the words to better match your Dialog by clicking the link at the bottom of the list.
Home | My Silverlink | Account Management | Logout

Figure 7A


Messages - Microsoft Internet Explorer provided by America Online
savvi™2.0
POWERED BY silverlink communications
Welcome, Paulo Matos
Home | My Silverlink | Account Management | Help | Logout
Home» My Silverlink» HealthCast Messages» Calendar» test 5
Call Script for "test 5"
"test 5" (Message is Active)
Call Type: HealthCast
Created By: Paulo Matos on 2002-07-22 09:58:51
Last Modified By: Paulo Matos on 2002-07-22 10:56:11
Audio Message: test1
Policy: Refill policy 2
Recipient(s): The group Just Paulo
Delivery: Between 11:00 AM and 8:00 PM
Starting Jul 22, 2002 and ending Jul 22, 2002
Delivery will occur on all days.
Cancel
Halt This Message
Call Report
22-Jul-2002 11:00 AM to 22-Jul-2002 8:00 PM
This application is close to its release date. To hear more, please say "information" now.

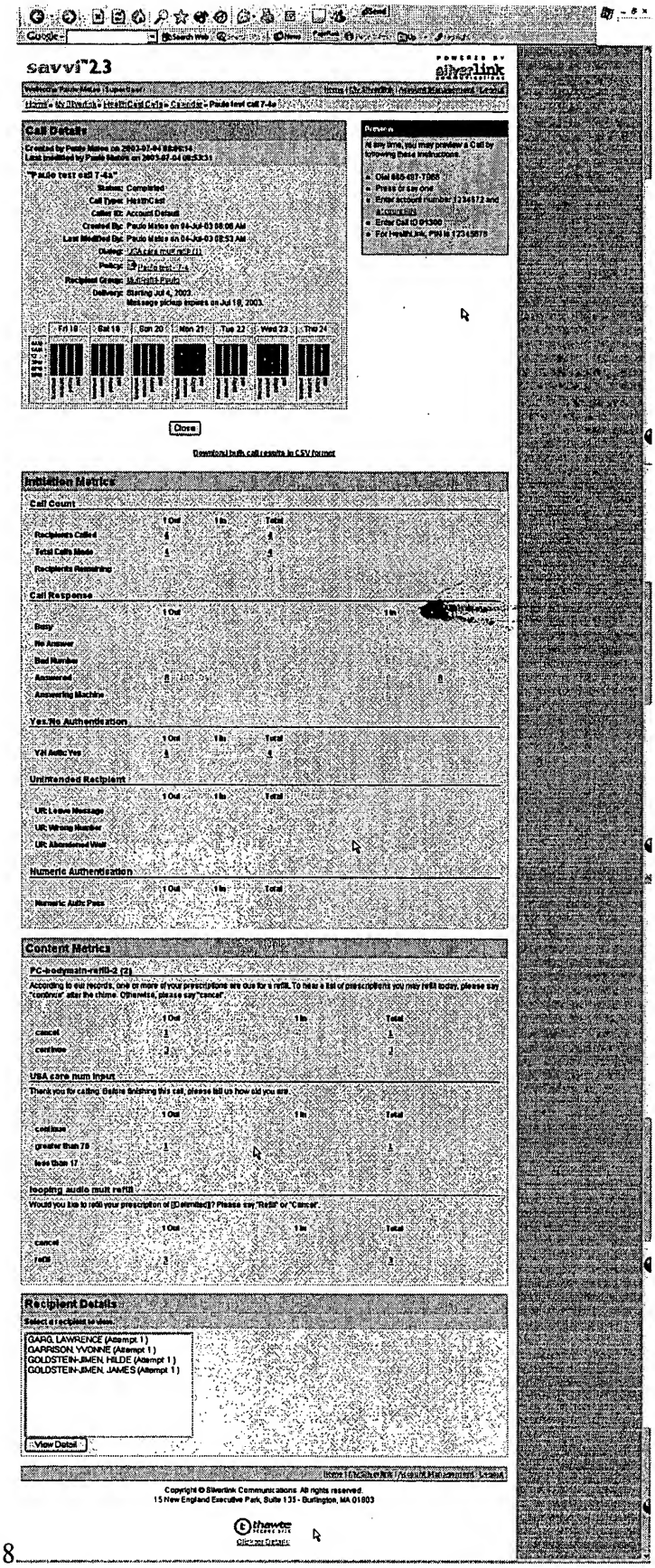

savvi"2.3
Call Details
Institution Metrics
Content Metrics
Recipient Details
Close

Figure 8

Figure 8A

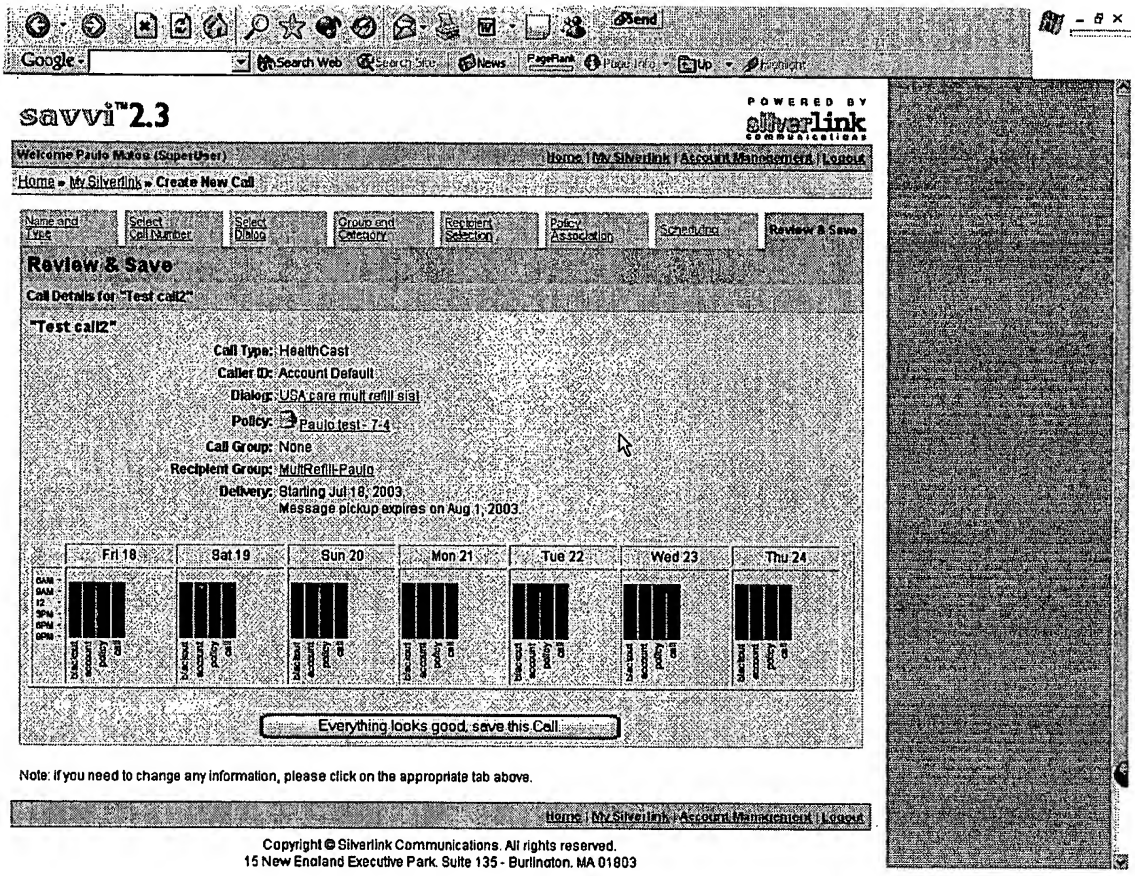

savvi™2.3
POWERED BY silverlink communications
Welcome Paulo Matos (SuperUser)
Home | My Silverlink | Account Management | Logout
Home » My Silverlink » Create New Call
Name and Type
Select Call Number
Select Dialog
Group and Category
Recipient Selection
Policy Association
Schedules
Review & Save
Review & Save
Call Details for "Test call2"
"Test call2"
Call Type: HealthCast
Caller ID: Account Default
Dialog: USA care mult refill slot
Policy: Paulo test - 7-4
Call Group: None
Recipient Group: MultRefill-Paulo
Delivery: Starting Jul 18, 2003
Message pickup expires on Aug 1, 2003
Fri 18
Sat 19
Sun 20
Mon 21
Tue 22
Wed 23
Thu 24
Everything looks good, save this Call
Note: If you need to change any information, please click on the appropriate tab above.
Home | My Silverlink | Account Management | Logout
Copyright © Silverlink Communications. All rights reserved.
15 New England Executive Park, Suite 135 - Burlington, MA 01803

Figure 9

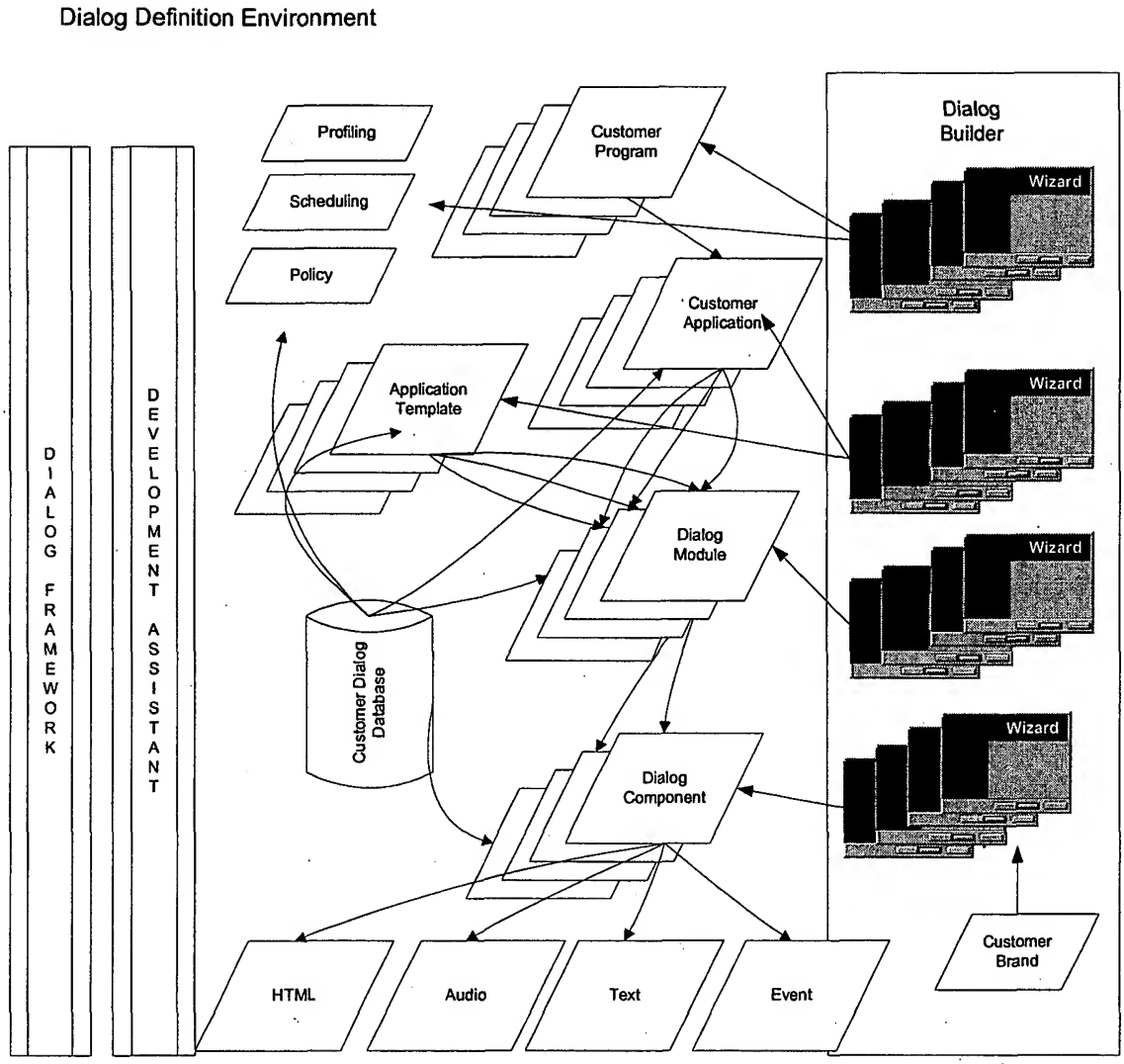

Dialog Definition Environment
DIALOG FRAMEWORK
DEVELOPMENT ASSISTANT
Profiling
Scheduling
Policy
Customer Program
Customer Application
Application Template
Dialog Module
Customer Dialog Database
Dialog Component
HTML
Audio
Text
Event
Dialog Builder
Wizard
Wizard
Wizard
Wizard
Customer Brand

Figure 10

Silverlink Execution Environment -
Dispatcher & Scheduler

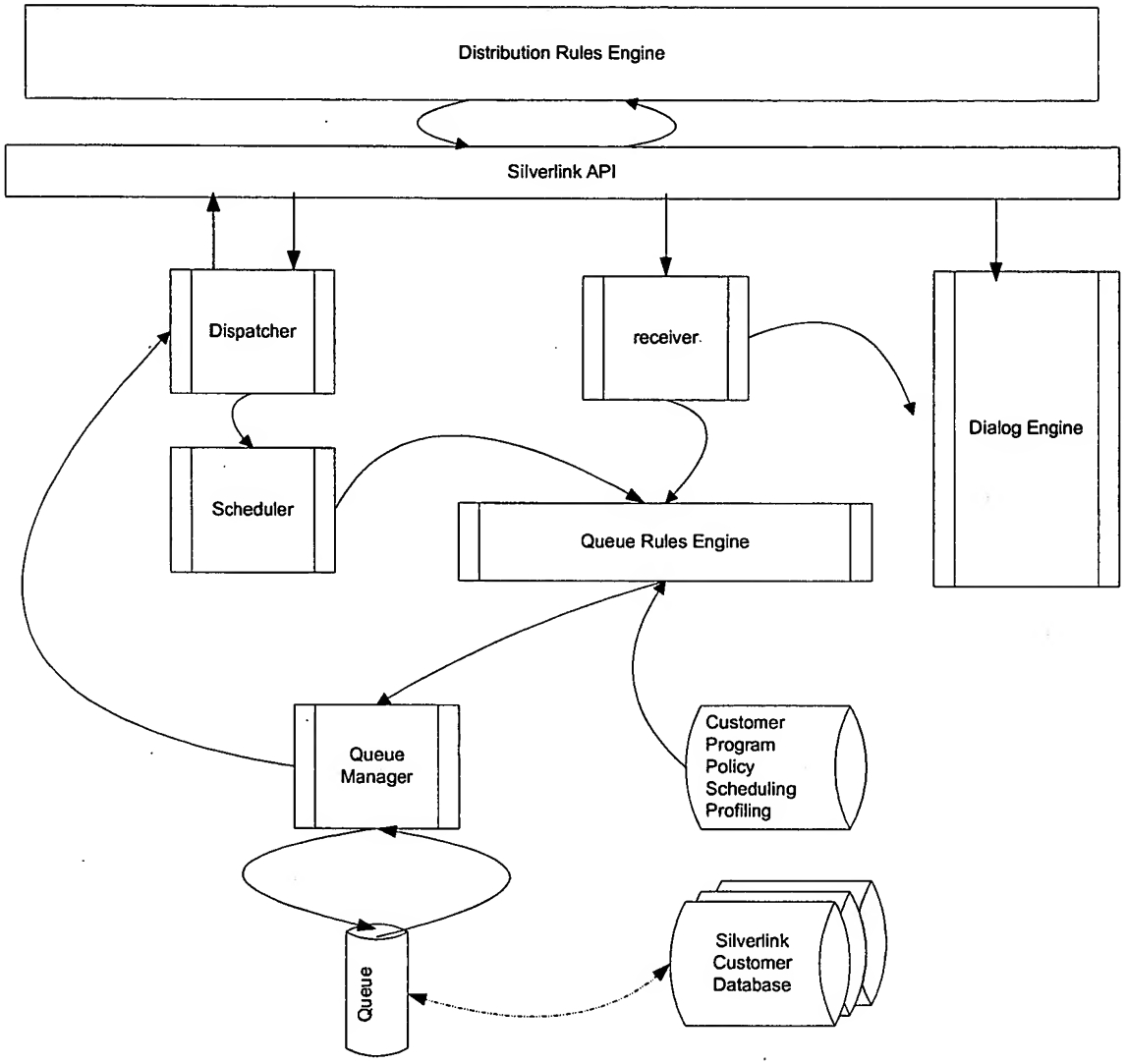


Figure 11

Silverlink contact Layer

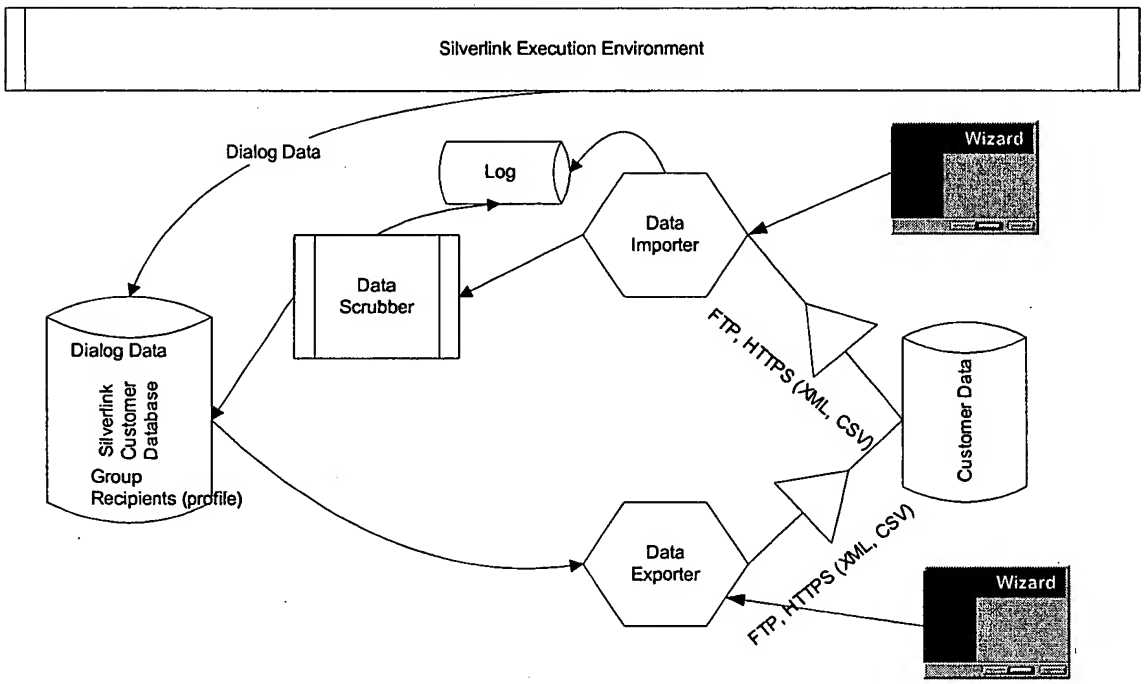
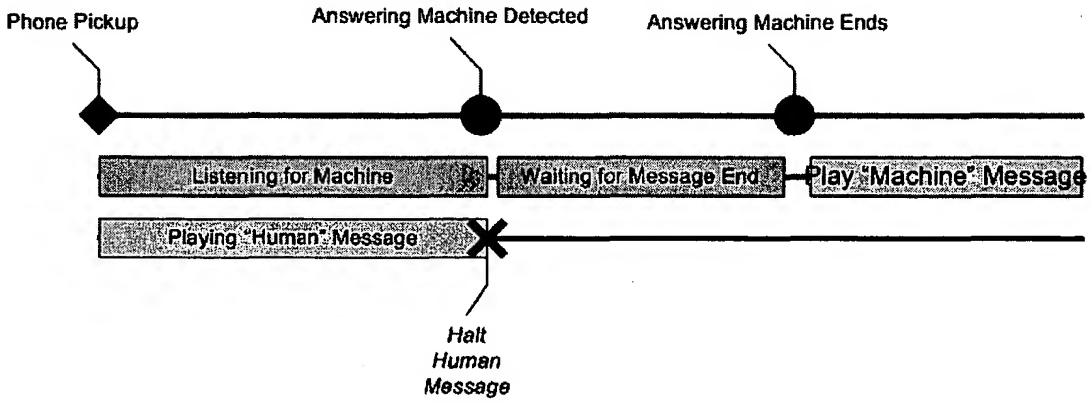


Figure 12

Message Timeline with Machine



Message Timeline with Human

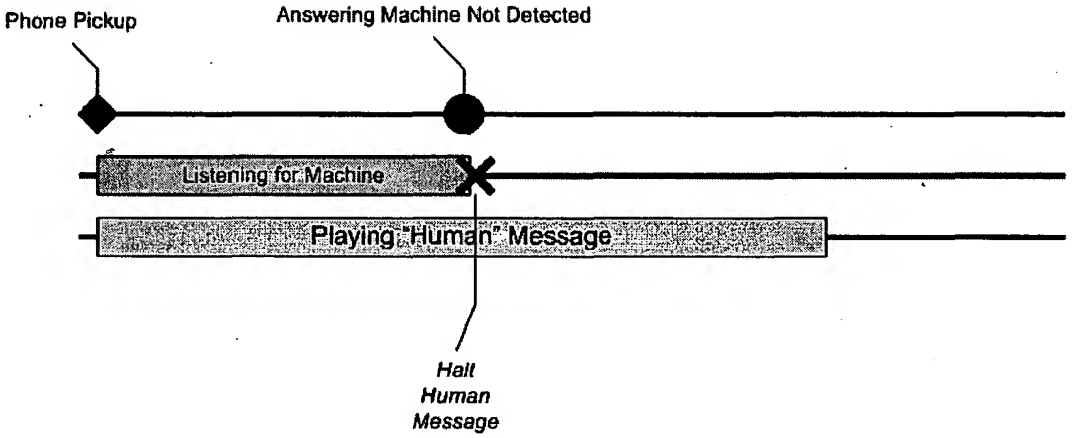
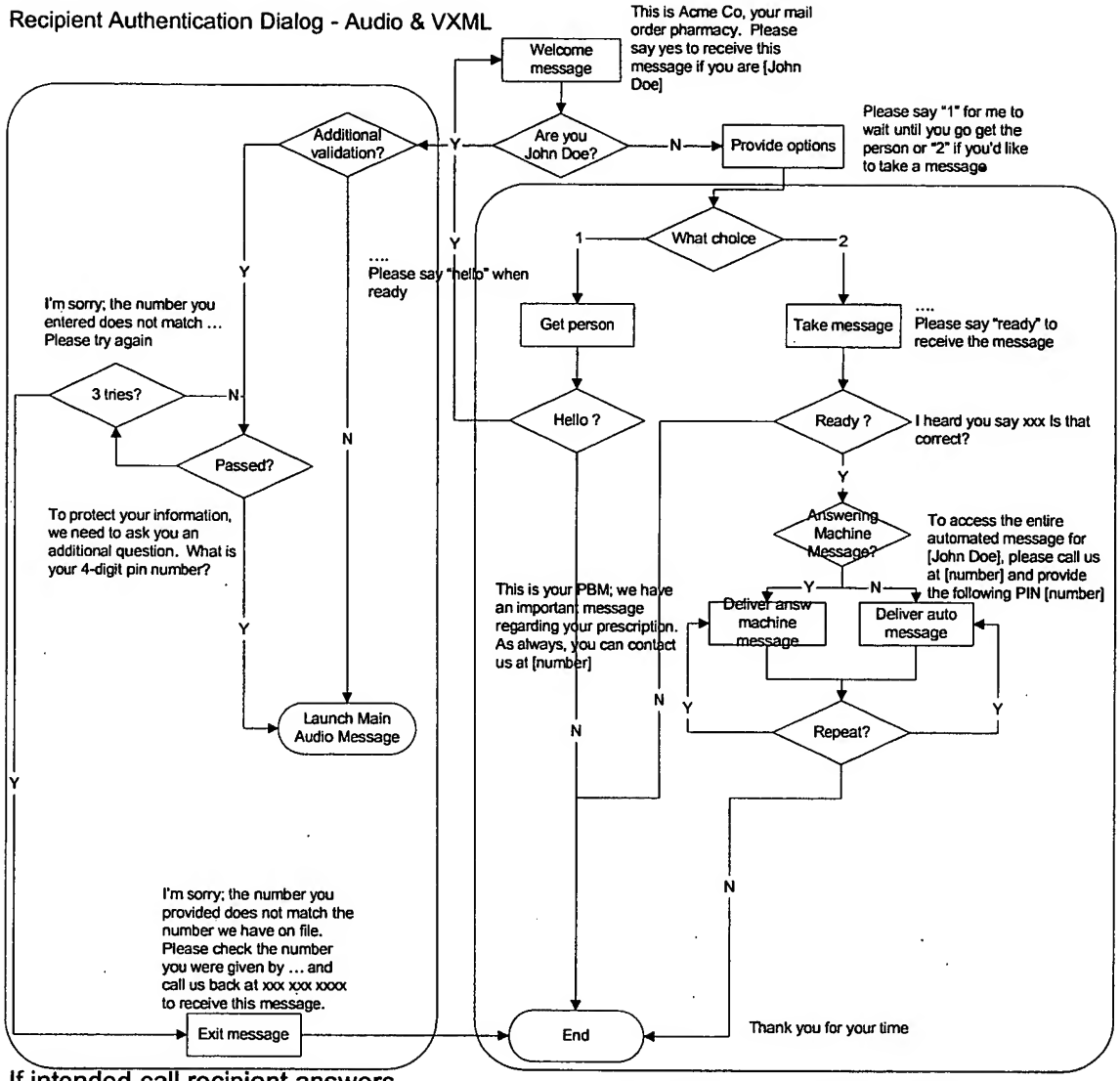


Figure 12 A



If intended call recipient answers the call, the dialog decides whether a further validation is needed or not, execute the validation and then deliver the call message

If intended call recipient does not answer the call, allow person who answered call to take message or pause until intended call recipient is summoned to receive the call

Figure 13

Silverlink Execution Environment -
Dialog Engine

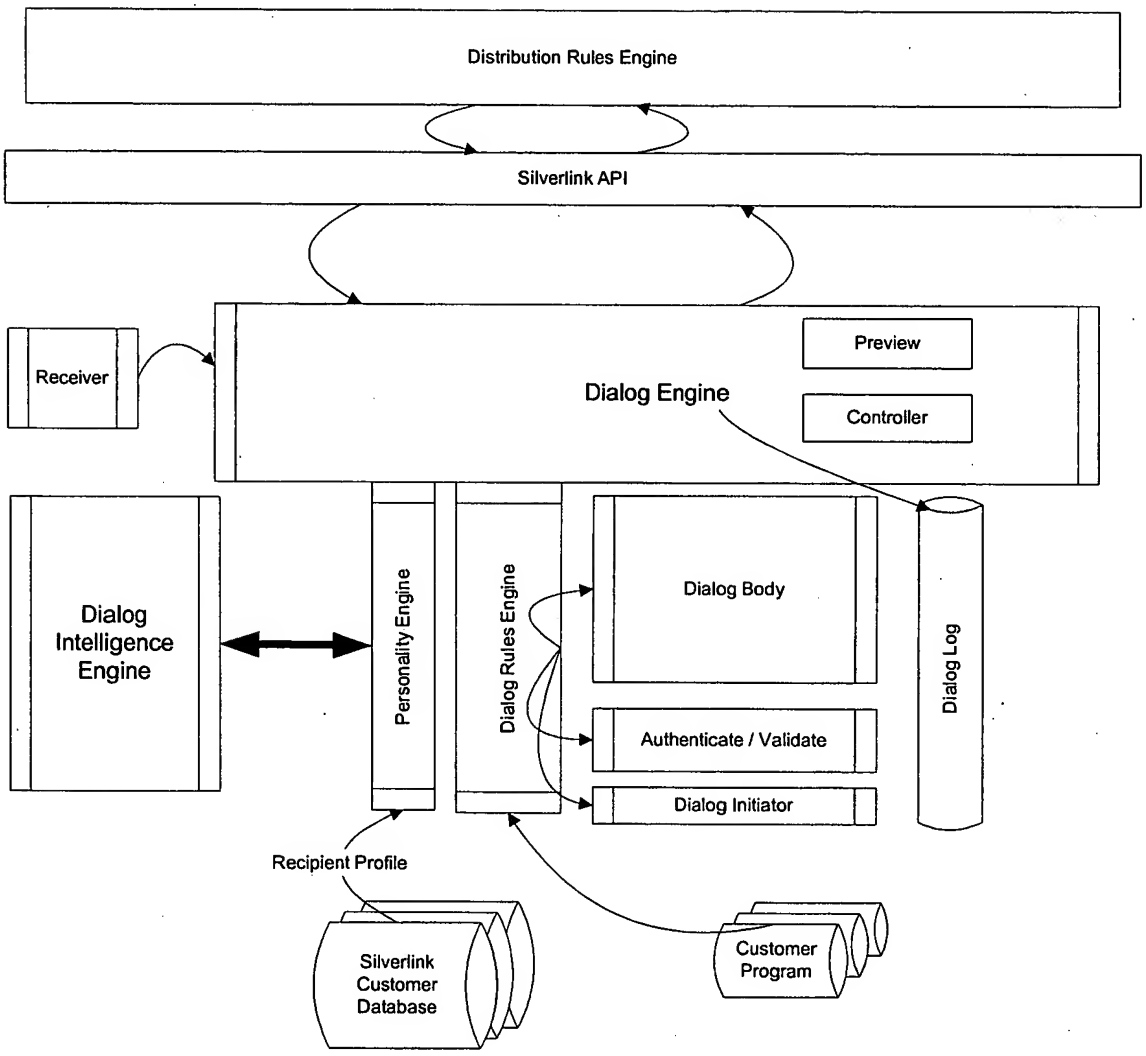


Figure 14

Silverlink Execution Environment -
Customer Interaction

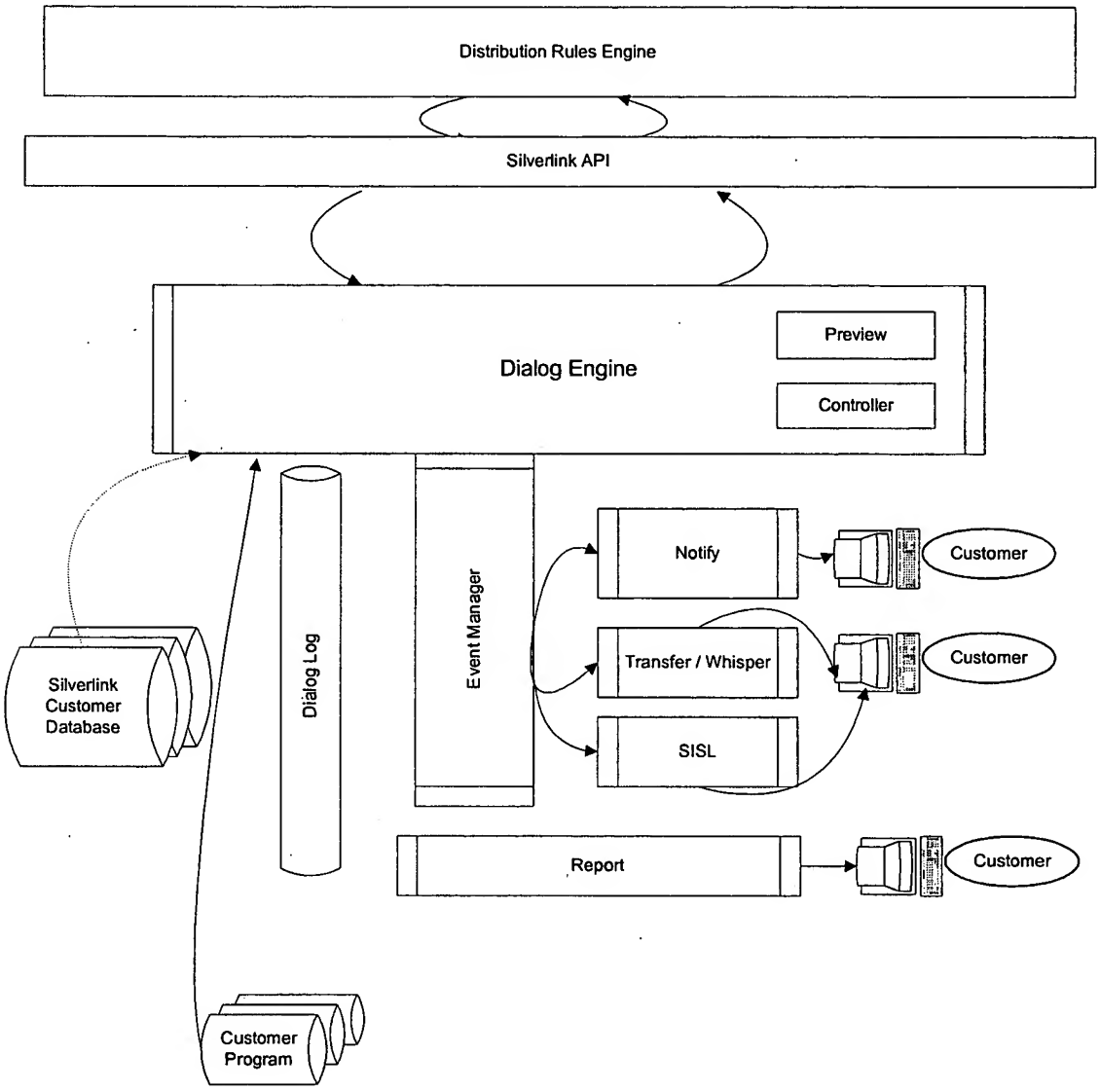
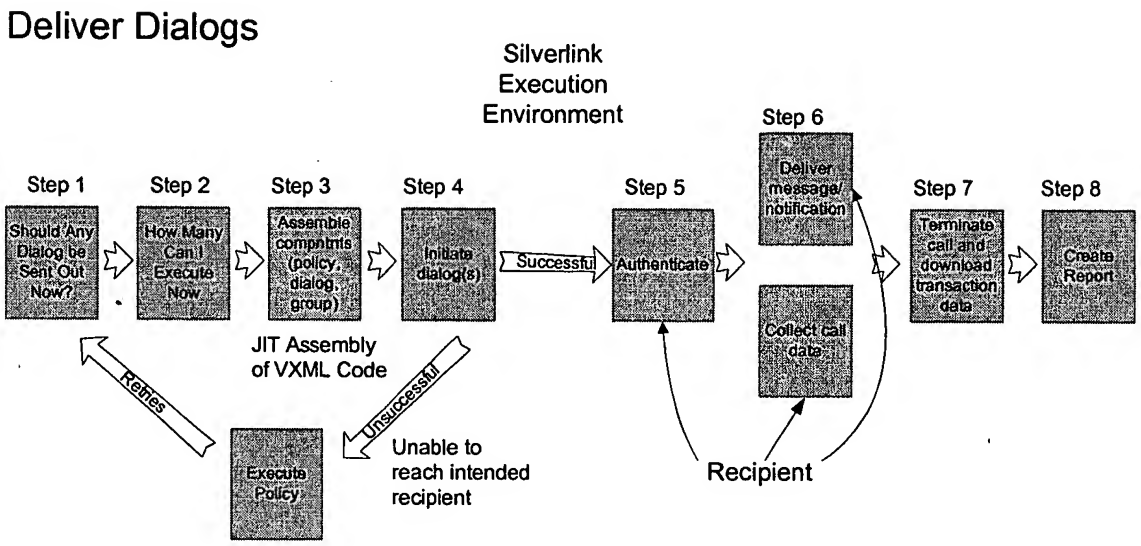


Figure 15


Deliver Dialogs
Silverlink Execution Environment
Step 1
Should Any Dialog be Sent Out Now?
Step 2
How Many Can I Execute Now
Step 3
Assemble components (policy, dialog, group)
Step 4
Initiate dialog(s)
Successful
Step 5
Authenticate
Step 6
Deliver message/ notification
Collect call data
Step 7
Terminate call and download transaction data
Step 8
Create Report
JIT Assembly of VXML Code
Refines
Unsuccessful
Execute Policy
Unable to reach intended recipient
Recipient

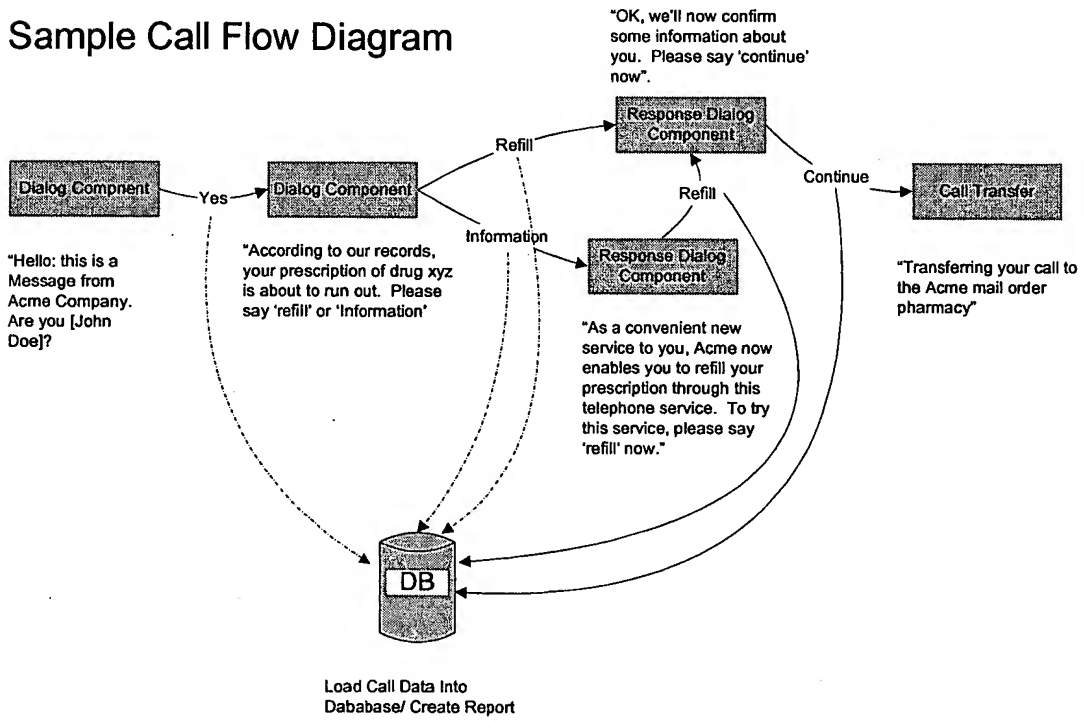

Sample Call Flow Diagram
"OK, we'll now confirm some information about you. Please say 'continue' now".
Response Dialog Component
Refill
Dialog Compnent
Yes
Dialog Component
Refill
Continue
Call Transfer
Information
"Hello: this is a Message from Acme Company. Are you [John Doe]?
"According to our records, your prescription of drug xyz is about to run out. Please say 'refill' or 'Information'
Response Dialog Component
"As a convenient new service to you, Acme now enables you to refill your prescription through this telephone service. To try this service, please say 'refill' now."
"Transferring your call to the Acme mail order pharmacy"
DB
Load Call Data Into Dababase/ Create Report

Figure 16

Silverlink Execution Environment - Interface

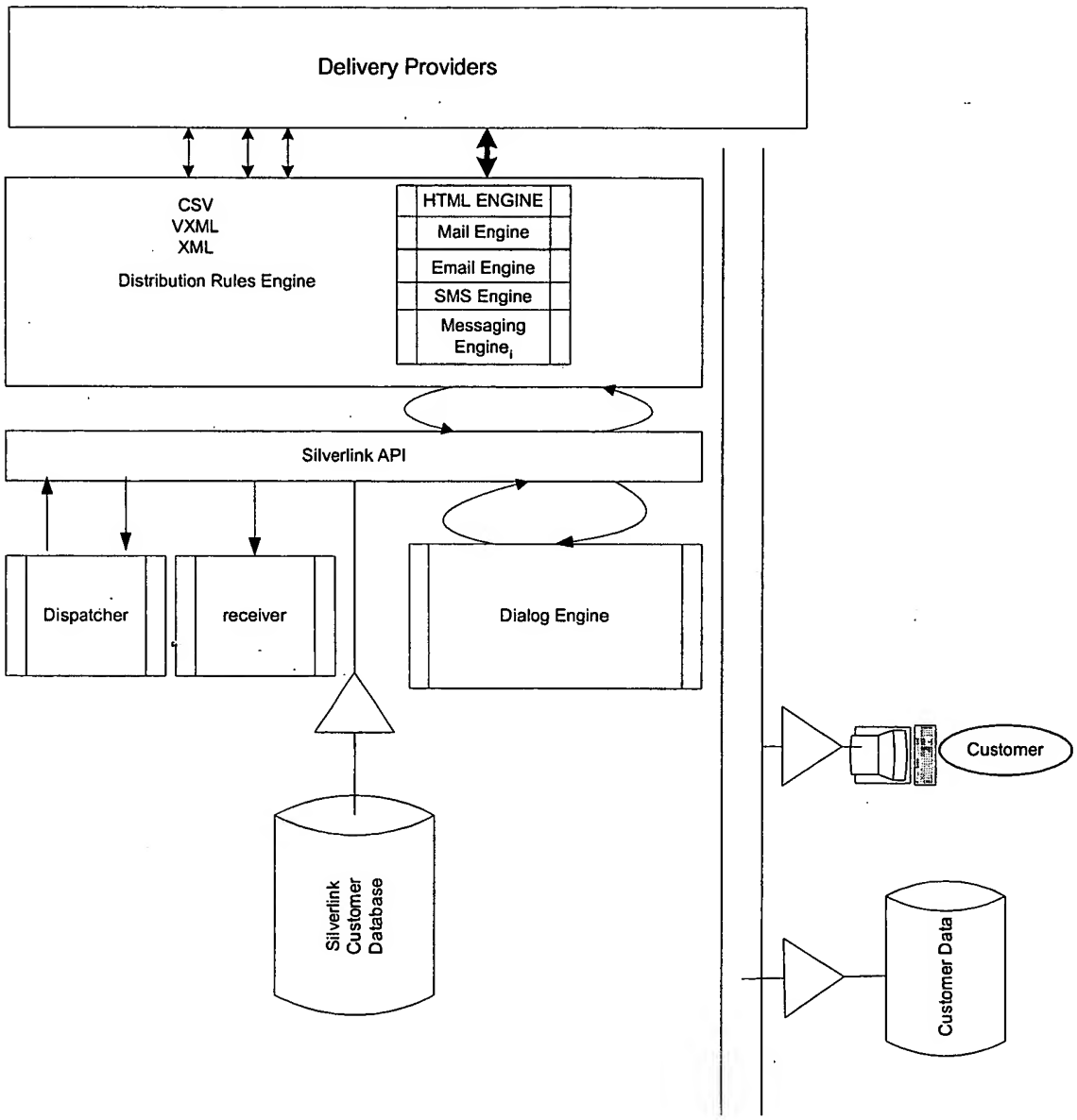


Figure 17

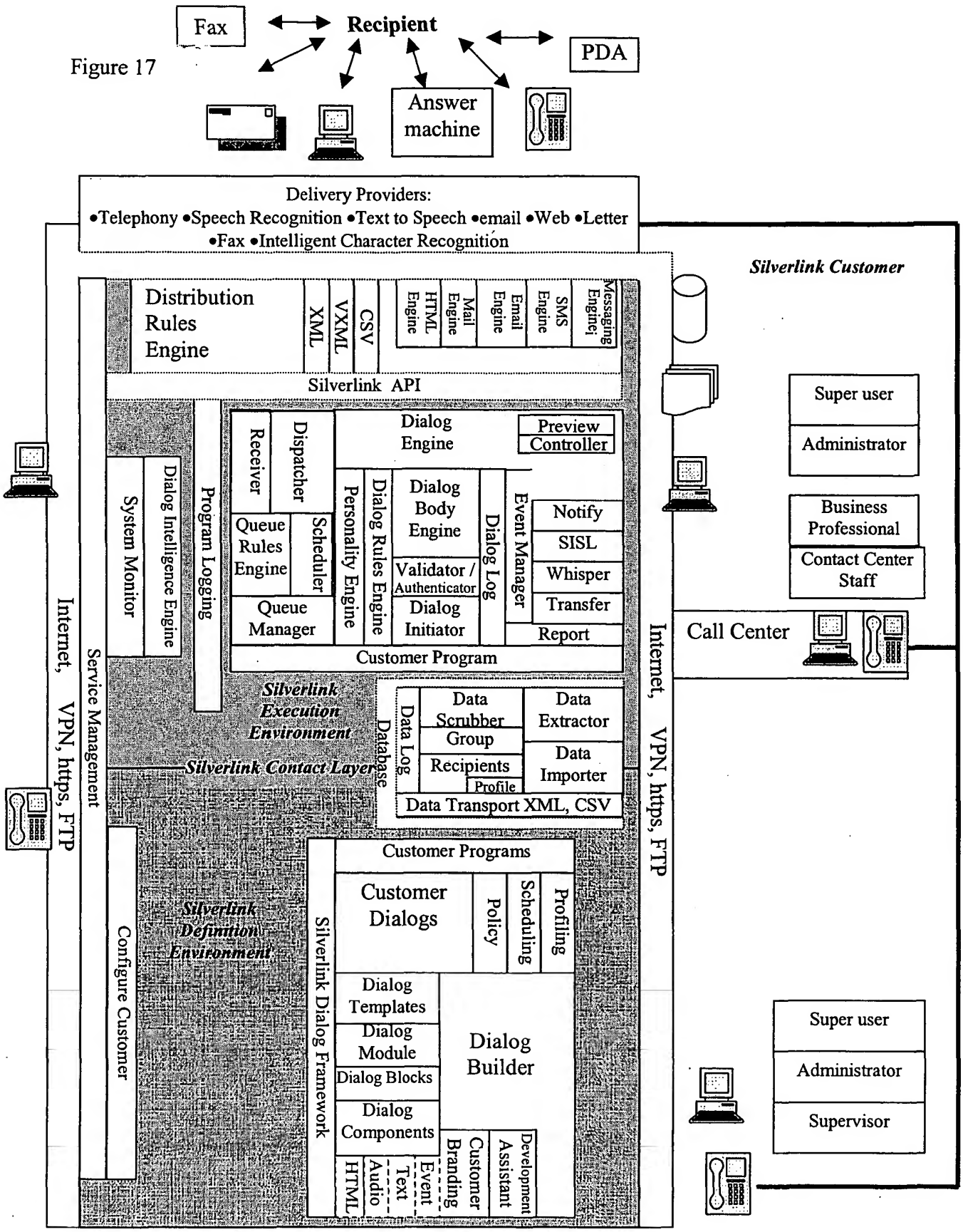
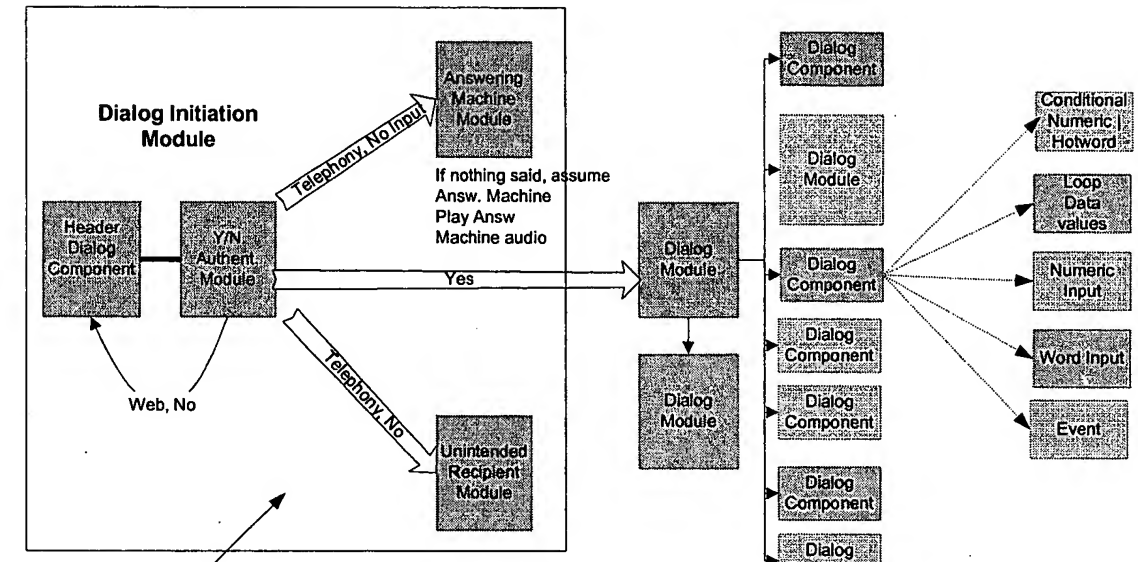

Fax
Recipient
PDA
Answer machine
Delivery Providers:
•Telephony •Speech Recognition •Text to Speech •email •Web •Letter
•Fax •Intelligent Character Recognition
Silverlink Customer
Distribution Rules Engine
XML
VXML
CSV
HTML Engine
Mail Engine
Email Engine
SMS Engine
Messaging Engine
Silverlink API
Super user
Administrator
Business Professional
Contact Center Staff
Call Center
Receiver
Dispatcher
Dialog Engine
Preview Controller
Queue Rules Engine
Scheduler
Queue Manager
Personality Engine
Dialog Rules Engine
Dialog Body Engine
Validator / Authenticator
Dialog Initiator
Dialog Log
Event Manager
Notify
SISL
Whisper
Transfer
Report
Customer Program
System Monitor
Dialog Intelligence Engine
Program Logging
Service Management
Internet, VPN, https, FTP
Silverlink Execution Environment
Silverlink Contact Layer
Database
Data Log
Data Scrubber
Group
Recipients
Profile
Data Extractor
Data Importer
Data Transport XML, CSV
Customer Programs
Customer Dialogs
Policy
Scheduling
Profiling
Dialog Templates
Dialog Module
Dialog Blocks
Dialog Components
Dialog Builder
Silverlink Dialog Framework
HTML
Audio
Text
Event
Customer Branding
Development Assistant
Configure Customer
Silverlink Definition Environment
Super user
Administrator
Supervisor
Internet, VPN, https, FTP
Silverlink Communications

Figure 18

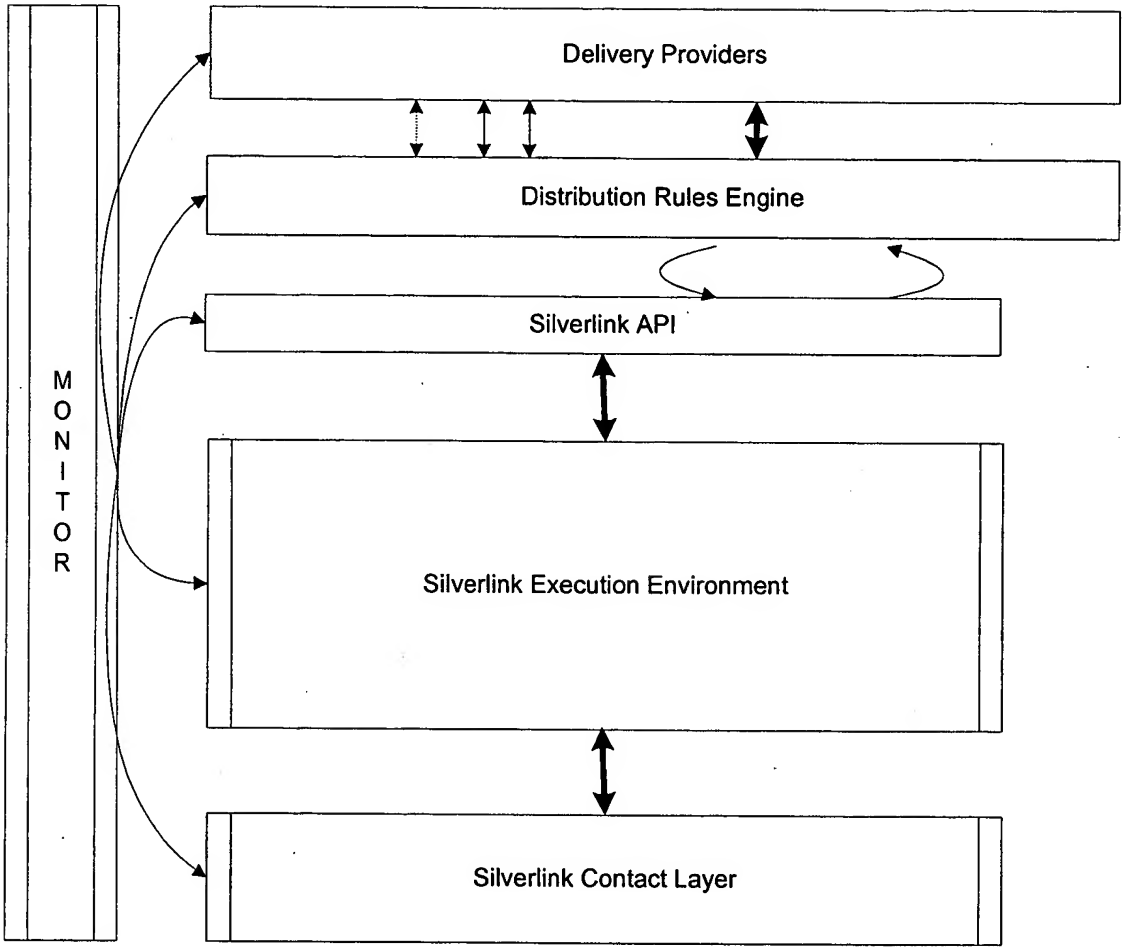
Assemble Application



Allow SAVVI user can preview the dialog using VXML (recorded audio for recorded audio components and TTS for unrecorded audio) and HTML

If "no", go to Unintended recipient workflow:
- Deliver Unintended Recipient audio only
or
- Ask user to choose between Wait, Message, or Wrong number (system audio).

* wait 1 minute; deliver system audio message saying that will wait for intended recipient
* message: play the unintended recipient message
* wrong number: play system audio message saying acknowledging wrong number

Figure 19

Silverlink Execution Environment -
System Monitoring